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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/612,909

07/07/2003

Franz Szenger

01003

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7590

01/05/2005

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EXAMINER

REIS, TRAVIS M

ART UNIT

PAPER NUMBER

2859

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/612,909

Applicant(s)

SZENER ET AL

Examiner

Travis M Reis

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 8-10, 13, & 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ruck et al. (U.S. Patent 5623766).

Ruck discloses a probe head for a coordinate measuring apparatus, the probe head comprising a yielding part (3, 9, 10) (Figure 1), a plurality of measuring systems (21, 22, 23) (col. 3 lines 58-60) for measuring the deflection of said yielding part in respective directions; an electromagnet damping device (29) for damping said yielding part in a pregiven direction; said damping device including at least one electromagnetic friction brake (15,16,17)(col. 4 lines 42-46) of generating friction clamping force, to counter a rebound of the probe head (col. 5 lines 26-29) & clamping said yielding part in a pregiven desired position causing said measuring force generator to generate pulse-like measurement forces (col. 6 lines 22-40), said friction force being electrically changed (Figure 4), said change considered to include the force being entirely "on" through to the force being entirely "off"; further comprising an electronic controller (40) for electrically adjusting said friction force of said friction brake in proportion to the time-dependent derivative of the measured deflection in a particular direction (col. 4 lines 48-56) (Figure 5).

***Claim Rejections - 35 USC § 103***

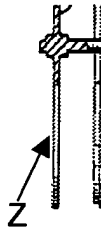
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2859

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scarrott et al. (U.S. Patent 3044593) in view of Ruck et al.

Scarrott et al. discloses a probe head, the probe head comprising a yielding part (12) (Figure 1); an electromagnet damping device (21) for damping said yielding part in a pregiven direction (i.e. the direction of rotation); said damping device including at least one electromagnetic friction brake (16,17, 18) including a first reinforced (11) and second reinforced flag (Z, see below) (col. 1 line 58),



generating friction force which can be electrically changed (Figure 2), said change considered to include the force being entirely "on" through to the force being entirely "off", said flags having a side facing away from said electromagnet; and said clamping means comprises a plate (22) on said side of said flag in spaced relationship thereto and thicker than said flag; a holder (28); and said plate is resiliently mounted on said holder so as to permit a displacement relative thereto when said plate is drawn by said electromagnet to clamp said flag therebetween (Figure 4).

With respect to the preamble of the claims 1-7: the preamble of the claim (i.e. for a coordinate measuring apparatus) does not provide enough patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self – contained description

of the structure not depending for completeness upon the introductory clause. Kropa v. Robie, 88 USPQ 478 ( CCPA 1951).

Scarrott et al. does not disclose a plurality of measuring systems.

Ruck et al. discloses a probe head for coordinate measuring apparatus with damping and clamping features, and further includes a plurality of measuring systems (21, 22, 23) for continuously detecting the deflections of the guided parts of the probe head (Figure 1) (cols. 3-4 lines 66-67 to 1-5). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the measuring systems disclosed by Ruck et al. to the damping device in order to continuously detect the deflections of the yielding part.

5. Claims 2, 11 & 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruck et al. in view of Scarrott et al.

Ruck et al. discloses all of the instant claimed invention as stated above in the rejection of claims 1, 8-10, 13, & 14, but do not disclose a flag; a spring suspended plate in spaced relationship with said flag; said electronic controller including means for clamping said friction brake by first applying a voltage so that said spring suspended plate is pulled toward said electromagnet and then dropping said voltage to below said threshold voltage.

Scarrott et al. discloses a frictional coupling device with a flag (11) in a spaced relationship with a spring (29) suspended plate (22); wherein an electromagnet (17) applies "light engagement" force, said light engagement force defined as not substantially more to maintain said surfaces in contact with said flag (col. 1 lines 38-57), in order that wear is automatically taken up (col. 3 lines 61-62). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to replace the damping means disclosed by Ruck et al. with the frictional coupling device disclosed by Scarrott et al. in order to reduce wear on the system.

***Response to Arguments***

6. In response to applicant's arguments that the measuring force generators disclosed by Ruck et al. are not friction brakes since they are plunger coil drives; these arguments have been fully considered but they are not persuasive since the drives are disclosed of enforcing damping abilities in accordance with the principle of the operation of a friction brake, as detailed above in paragraph 2.

7. In response to applicant's arguments that Scarrott et al. bears no relationship to a probe head for a coordinate measuring apparatus; these arguments have been fully considered but they are not persuasive since, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

8. In response to applicant's arguments that Scarrott et al. has no plurality of measuring systems; these arguments have been fully considered but they are not persuasive since this feature is provided for by the combination of the prior art of Ruck et al. with the invention disclosed by Scarrott et al., as detailed above in paragraph 4.

9. In response to applicant's arguments that the Scarrott et al. frictional coupling device is not a damping device for damping the yielding part in a pregiven direction, provides no damping function, and provides no pregiven direction but only rotation about an axis; these arguments have been fully considered but they are not persuasive since the clamping force is considered to be administered as a "light engagement" upon the pregiven rotation direction,

Art Unit: 2859

therefore meeting the limitations of the claims, as detailed above in paragraph 4.

10. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the device disclosed by Scarrott et al. is motivated by the benefit of continuous monitoring of the deflections in the yielding part of the device provided by the measuring system disclosed by Ruck et al.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

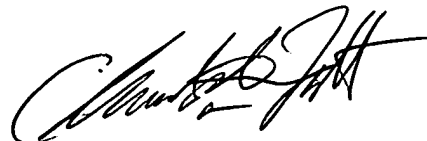
Art Unit: 2859

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis M Reis whose telephone number is (571) 272-2249.

The examiner can normally be reached on 8--5 M--F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for all communications.

Travis M Reis  
Examiner  
Art Unit 2859



Diego Gutierrez  
Supervisory Patent Examiner  
Technology Center 2800

tmr  
January 3, 2005

**CHRISTOPHER W. FULTON**  
**PRIMARY EXAMINER**